

# U.S. Department of Energy

## Office of Science (SC) Chief Information Officer (CIO) Implementation Plan

*November 2000*



MANAGING INFORMATION TO ADVANCE THE MISSIONS OF THE OFFICE OF SCIENCE.

*Information Management and Technology Division*

## Table of Contents

|  |     |
|--|-----|
| Preface.....   | ii  |
| Management Summary.....                                  | iii |
| 1. Introduction.....                                     | 1   |
| 1.1 Purpose.....   | 1   |
| 1.2 Scope.....   | 1   |
| 1.3 References .....                                     | 1   |
| 2. Organization.....                                     | 2   |
| 2.1 Proposed Organization/Program Structure Charts ..... | 2   |
| 2.2 Office of Science CIO Mission and Functions .....    | 5   |
| 2.3 Lines of Authority .....                             | 7   |
| 2.4 Reporting Structure.....                             | 7   |
| 3. Staffing for the Proposed CIO Function.....           | 8   |
| 4. CIO Position.....                                     | 8   |

## Preface

---

**Document Version Control:** The document version number and date are recorded in the document footer. If there is any question as to whether the document in hand is the current version, please contact the Information Management and Technology Division of the Office of Science.

This document was generated by the Information Management and Technology Division of the Office of Science, U.S. Department of Energy.

**Document Owner:** The primary contact for questions regarding this document is Richard Yockman, Director, Information Management and Technology Division, Office of Science.

Owner's Name: Richard Yockman  
Phone: 301-903-3394  
Internet: [richard.yockman@science.doe.gov](mailto:richard.yockman@science.doe.gov)

## **Management Summary**

---

T. J. Glauthier, Deputy Secretary of the U.S. Department of Energy (DOE), in the memorandum “Improving Management of Information Technology,” dated September 15, 2000, directed that each Lead Program Secretarial Office (LPSO) establish a full-time Chief Information Officer (CIO) position. The goal of the Office of Science (SC) is to meet the requirements of the Deputy Secretary as stated in this memorandum, while minimizing the impact on SC and its field facilities, both Federal and contractor. The approach outlined in this document is considered to be the least disruptive, least resource-intensive, and simplest. SC’s initial intent is to keep implementation simple, and let improvements evolve.

The Director, Information Management and Technology Division, is the designated SC Chief Information Officer (CIO). This position reports to the Associate Director, Office of Resource Management, a direct report of the Director, Office of Science, as required by Deputy Secretary Glauthier. This designation requires no staffing changes or reorganization; this organization currently performs the equivalent of CIO functions for the Office of Science.

A CIO for each Operations Office and for each laboratory/management contractor (referenced as site CIOs in this plan) will be designated by the site manager (Operations Office or contractor organization manager). A core set of CIO functional responsibilities is included in this document (Section 2.2). It is recommended that the site CIOs report to the site manager or to a direct report of the site manager. (Note: These CIOs will address business and administrative Information Management (IM). Information Technology scientific/research projects will be addressed only as required by the DOE CIO in accordance with Office of Management and Budget (OMB), Congressional, or other external reporting requirements.)

The reporting structure and lines of authority with the SC Operations Offices (Chicago and Oak Ridge) and field contractors will be addressed through an SC Corporate CIO Council and Operations Office CIO Councils. The SC Corporate CIO Council will be chaired by the SC CIO with Operations Office CIOs, site office managers (not falling under Chicago or Oak Ridge) and laboratory/management contractor CIO representatives as members. The Operations Office CIO Councils will be chaired by the Chicago and Oak Ridge CIOs with laboratory/management contractor CIOs serving as members.

The plan recommends that each site establish an IM Board, chaired by the site manager or a direct report to the site manager. Members of the Board are senior site business representatives and the site CIO. The Board provides business oversight of the site IM program. The Board determines business requirements and project priorities, serves as a project funding champion, and ensures that site IM activities are consistent with site and corporate business objectives. The chair of this site board will sit on an SC Corporate IM Board that performs the same functions for SC-wide IM activities.

This approach meets the requirements of Deputy Secretary Glauthier and the philosophy of information management practices within the Office of Science.

# **1. Introduction**

---

This section explains the purpose and scope of the SC CIO Implementation Plan.

## **1.1 Purpose**

T. J. Glauthier, Deputy Secretary of the U.S. Department of Energy (DOE), in the memorandum “Improving Management of Information Technology,” dated September 15, 2000, directed that each Lead Program Secretarial Officer (LPSO) establish a full-time Chief Information Officer (CIO) position. The memorandum requires that an implementation plan be submitted for approval to the Office of the Deputy Secretary. This plan is submitted in response to that requirement and proposes a structure to meet the CIO responsibilities of the Office of Science.

## **1.2 Scope**

This plan addresses the required plan elements as listed in the September 15, 2000, memorandum from Deputy Secretary Glauthier.

## **1.3 References**

The following references were used to develop this plan:

- ☐ Memorandum for Heads of Headquarters Elements, “Improving Management of Information Technology”, signed by Deputy Secretary Glauthier, September 15, 2000
- ☐ Information Technology Management Reform Act of 1996 (Clinger-Cohen)
- ☐ Paperwork Reduction Act of 1995
- ☐ Government Performance and Results Act of 1993
- ☐ Executive Order 13011, “Federal Information Technology,” July 16, 1996
- ☐ Government Paperwork Elimination Act
- ☐ OMB Circular A-130, “Management of Federal Information Management Resources”

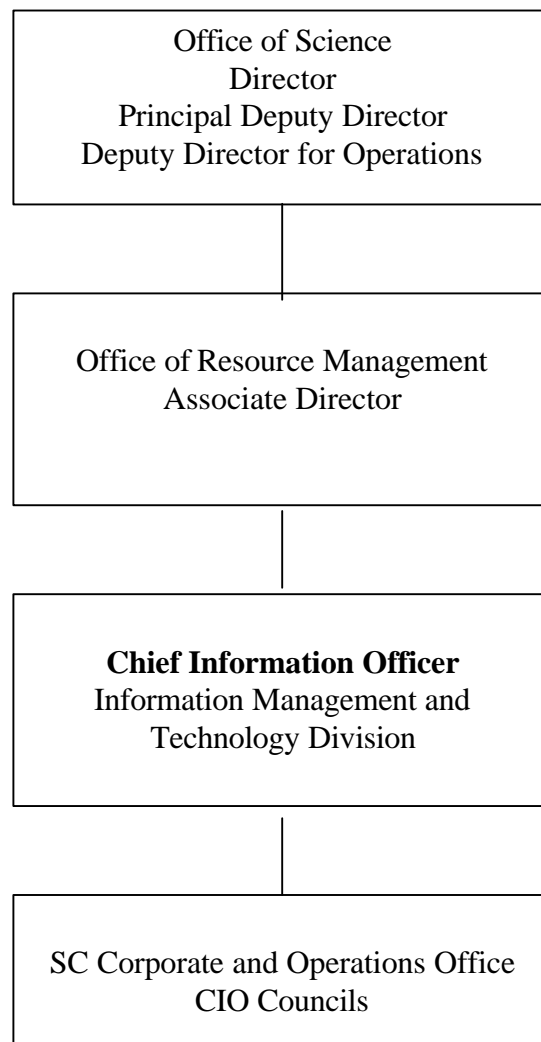
## 2. Organization

---

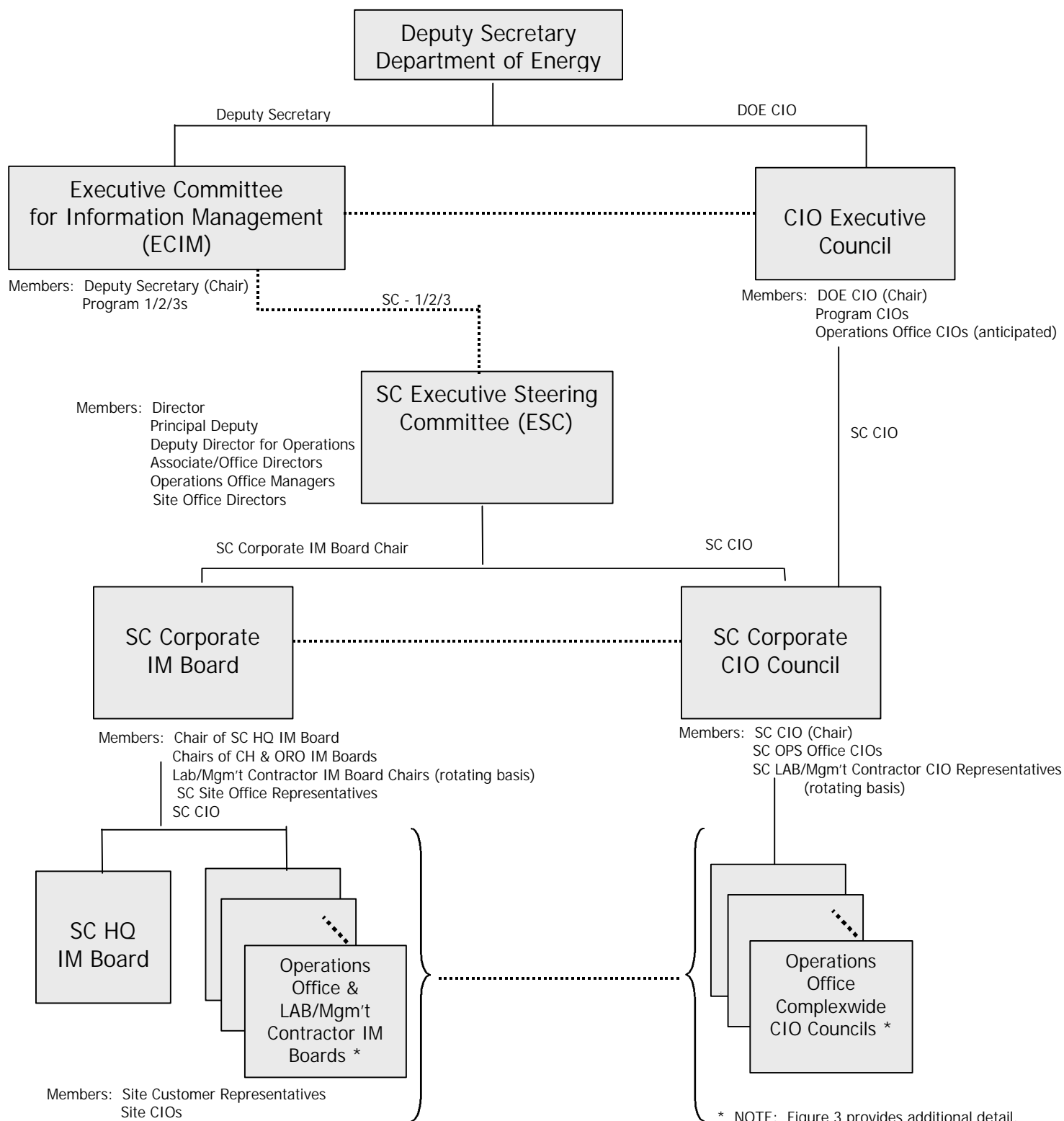
This section describes the proposed organization, lines of authority and reporting structure of the Chief Information Officer for the Office of Science and of Federal and laboratory/management contractor field elements under the purview of the Office of Science.

### 2.1 Proposed Organization/Program Structure Charts

The following figures depict the SC CIO organization reporting structure (Figure 1), the SC Information Management Program and interfaces to the Departmental Program (Figure 2), and the SC Operations Office and laboratory/management contractor Information Management Program (Figure 3).

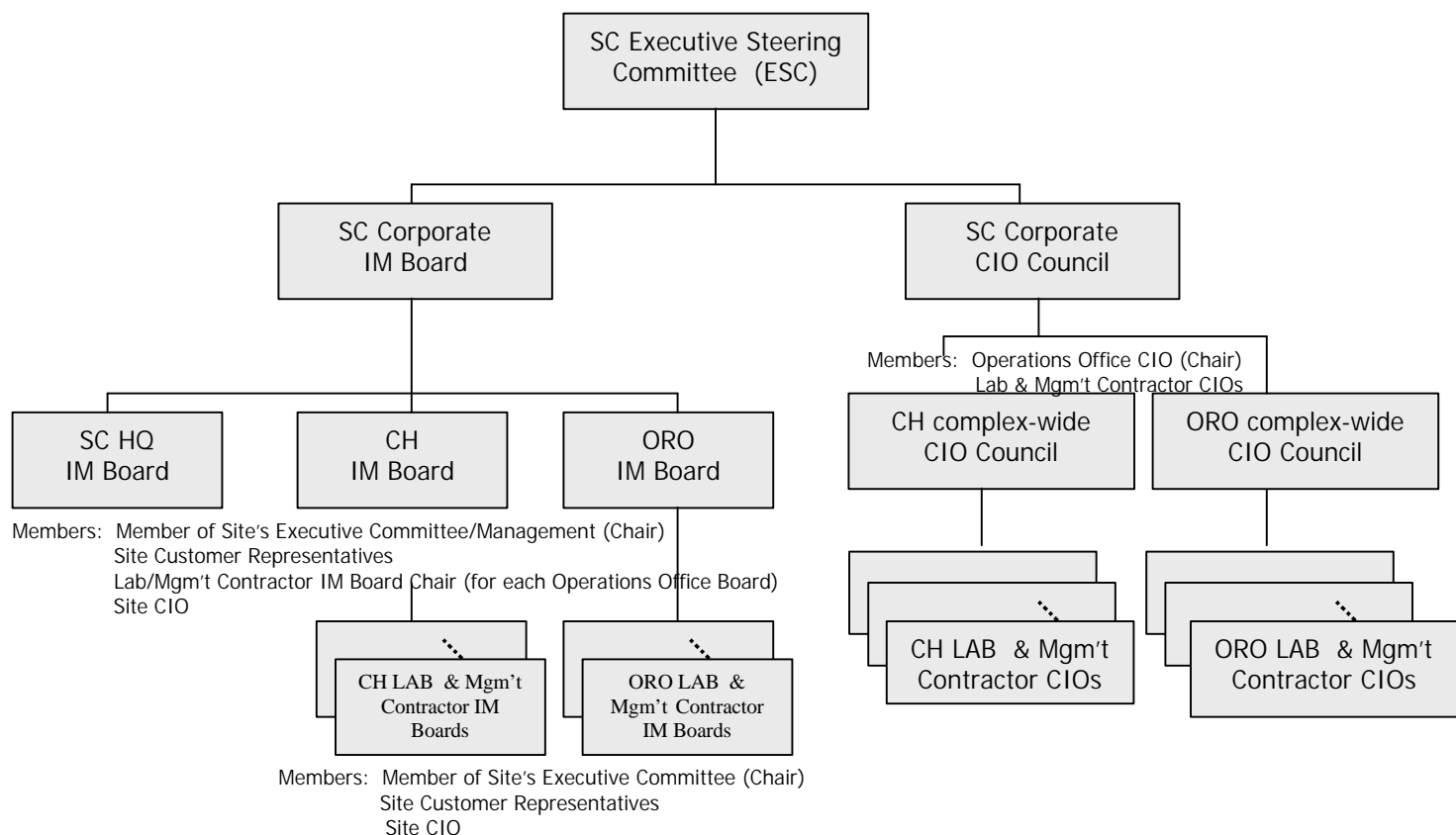


**Figure 1 Office of Science CIO Organization Reporting Structure**



**Figure 2 Office of Science Information Management Program and Interfaces to the Departmental Program**





SC proposes that each SC Federal and laboratory/management contractor field site establish a CIO with a core set of functional responsibilities as identified in Section 2.2. It is recommended that the site CIO report to the site manager or to a direct report of the site manager and that each site establish an IM Board whose members are senior representatives from all site business lines. The chair of each Operations Office IM Board (along with representative chairs from laboratory/management contractor IM Boards) would be members of the SC Corporate IM Board. SC site offices (not falling under Chicago or Oak Ridge) will be represented on the corporate IM Board.

Figure 3 highlights how the SC IM Program model will function in the field. The appointed CIOs of the laboratories and management contractors reporting through Chicago or Oak Ridge operations offices will sit on the council and board of the appropriate operations office. The IM Board chairs of the laboratory/management contractor sites will be members of the appropriate operations office IM Board. In addition, on a rotating basis, laboratory/management contractor members, chosen by the operations office council and board respectively, will represent the laboratory/management contractor voice on the SC Corporate Council and Board. All

**Figure 3** Office of Science Operations Office and Laboratory/Management Contractor Information Management Program

collaborative/corporate IM activities will be coordinated through the corporate and operations office CIO Councils and IM Boards.

Note: It is recommended that the membership of the DOE CIO Executive Council include Operations Office CIOs.

## **2.2 Office of Science CIO Mission and Functions**

### **Mission**

The SC CIO is the principal IM advisor to the senior management of the Office of Science. The CIO coordinates corporate and business information management activities of the Office of Science, including Headquarters, field, and external reporting activities. The CIO defines and implements guidelines and procedures to ensure efficient and cost-effective information technology planning, acquisition, and operation in support of the mission and objectives of the Office of Science, consistent with Department of Energy information management and information technology policies. As a member of the DOE CIO Executive Council, the SC CIO works with the Departmental CIO and other Program and staff organizations on corporate information management initiatives. Consistent with the goals of the Clinger-Cohen Act, the SC CIO works to provide an effective and reliable Departmental information technology infrastructure, significant cyber security enhancements, and modernized corporate systems based on the Department corporate information architecture.

### **Functional Responsibilities of SC CIOs**

#### **SC Site CIOs, Core Functions**

The SC CIO Implementation Plan is based on the fundamental premise that single points of contact, each with a consistent set of core responsibilities and authorities, will be established for each site. Additional responsibilities and authorities, unique to a particular site, may be assigned to a site CIO. The following functions are proposed as the core set of responsibilities and authorities for each SC site CIO:

- ☐ Acts as principal information management advisor to site senior management.
- ☐ Establishes a systematic approach to capital information technology (IT) planning and management.
- ☐ Ensures that information management and technology activities are carried out consistent with laws and regulations, including the Paperwork Reduction Act of 1995, Clinger-Cohen Act, and OMB Circular A-130.
- ☐ Produces and maintains a site strategic information management plan that is fully integrated with the SC-wide Information Management Strategic Plan.
- ☐ Establishes and maintains an information technology architecture
- ☐ Assists process owners and management in recognizing where information technology can add value in supporting program and project operations

- ☐ Executes IT Performance Assessments, including measuring customer satisfaction, monitoring and measuring IT project development and integration, defining and selecting effective performance measures, and managing IT reviews and oversight processes
- ☐ Applies techniques/models of quality improvement, organizational development and change, and process management and control to IT projects
- ☐ Provides oversight to ensure that information and records are properly protected.
- ☐ Directs the establishment, implementation, and maintenance of a comprehensive and effective site cyber/computer security program.
- ☐ Provides post-award IT contract management
- ☐ Facilitates and coordinates the acquisition of information technology resources (for the corporate and business information systems) using IT acquisition best practices
- ☐ Oversees formulation of strategies and plans for hiring, training, professional development and retention of IT staff
- ☐ Manages E-Government/Electronic Business/Electronic Commerce strategic business issues and changes
- ☐ Provides advice and analyses relating to corporate information and business system issues and initiatives affecting the site
- ☐ Participates in the site's decision-making, policy making process and budget formulation and execution process.
- ☐ Actively participates in the SC CIO Council, accepting a shared responsibility (with other SC site CIOs) for the corporate direction and success of the SC IM/IT program. As a member of the SC CIO Council, fully speaks/represents the site's IM/IT plans and activities. Note: SC is recommending operations Office CIO participation in the DOE CIO Executive Council.
- ☐ Proactively encourages/assists in the establishment (or operation) of the site's IM Board.
- ☐ Reports on site IM activities in accordance with SC corporate, Departmental and/or external reporting requirements.

## **SC Corporate CIO**

In addition to the core set of functions for all SC site CIOs, the SC corporate CIO will also be responsible for the following functions:

- ☐ Coordinates the corporate and business information management activities of the Office of Science, including Headquarters and field activities.
- ☐ Chairs and supports an SC corporate CIO Council that promotes coordination and integration among the SC Operations Offices and site contractors.
- ☐ Tracks the Office of Science Headquarters and field implementation cyber/computer security program.
- ☐ Determines and develops SC IM policies, procedures, and standards (Headquarters and field).
- ☐ Defines and implements guidelines and procedures (planning, acquisition, and operation) to ensure efficient and cost-effective information technology in support of the mission and objectives of the Office of Science, consistent with Department of Energy policies.
- ☐ Participates as a member of the DOE CIO Executive Council.

- Coordinates the Office of Science information technology infrastructure.
- Promotes the effective and efficient design and operation of Departmental information management processes and collaborates with the Department's Chief Information Officer on corporate information systems.
- Assists the CIO and CFO in integrating strategic planning, budget formulation, and program performance measurement activities within the information technology investment process.
- Works with the Department's CIO and other staff and program organizations in collaborating on major information system investments.
- Coordinates external IM reporting SC-wide.
- Provides for the operation and service delivery of the Office of Science's information management and information technology Headquarters programs.

### **2.3 Lines of Authority**

All SC site CIOs will have the authority to fully represent their respective sites regarding the core functions presented above. The SC CIO will further have the authority to represent SC in accordance with the functions listed under the SC Corporate CIO.

It is expected that SC site CIOs will operate in partnership with site business representatives in determining business needs and IM/IT priorities. Site CIO authority will be earned through an effective partnership with business representatives. Each SC site CIO is expected to have the authority to represent his/her site through the SC CIO Council process depicted in Figures 2 and 3.

### **2.4 Reporting Structure**

Organizationally, the SC CIO will report to the Associate Director, Office of Resource Management, who is a direct report to the Director, Office of Science. The SC CIO will work through the SC CIO Council structure to meet internal, Departmental CIO, and external reporting requirements related to SC Information Management activities. Further, it is recommended that all SC site representatives report to their site manager or to a direct report of the site manager.

As noted in Deputy Secretary Glauthier's memorandum, "Corporate DOE policy decisions and recommendations will continue to be worked through the Field Management Council or directives processes as appropriate."

### **3. Staffing**

---

There is no plan to change current staffing for the Information Management and Technology Division, Office of Science (the SC CIO and 8 Federal staff). It is recognized that, as the proposed SC CIO implementation evolves, additional staff may be required. Revised staffing plans will be developed in response to that requirement. It is hoped that effective leveraging of collective SC corporate and site CIO staff resources will meet any interim staffing needs that may be identified.

### **4. CIO Position**

---

This plan names the Director, Information Management and Technology Division, Office of Resource Management, Office of Science as the Office of Science CIO. This appointment is effective immediately. No further recruitment is required.

The SC CIO position, Director, Information Management and Technology Division, is a GS-15. The current position description will be revised to reflect the agreed set of functional responsibilities as described in Section 2.2, above.

Performance goals will be established in coordination with the SC Corporate IM Board in accordance with the SC IM Strategic and Operating Plans, and consistent with direction provided by Deputy Secretary Glauthier in his memorandum of September 15, 2000.